



## Inside the Star

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- **Todd May led Marshall efforts to build Space Station airlock, page 5**

## Marshall Center hosts 25 teachers for summer workshop

from the Education Programs Department

**T**wenty-five K-8 teachers from 15 states are attending a two-week workshop through July 20 at the Marshall Center.

The NASA Educational Workshops (NEW) Program is a NASA Headquarters initiative managed by the National Science Teachers Association, and coordinated by Marshall's Education Programs Department.

During the workshop, participants will observe NASA's state-of-the-art research and development through direct interaction

with NASA scientists, engineers, technicians and educational specialists. The educational materials and activities presented in the workshop are related to aerospace technology, biological science and physical research, Earth science, human exploration and development of space, and space science.

Approximately 700 educators submitted applications for the workshop program. Each applicant answered questions pertaining to the incorporation of the

*See Workshop on page 6*

## Atlantis to debut Marshall-developed Block II engine

# Shuttle to deliver Marshall-built airlock, experiment

by Tracy McMahan

**S**pace walkers soon will leave the International Space Station more easily through a new "doorway to space" when the Space Shuttle Atlantis delivers to the Station an airlock built and tested at the Marshall Center.

In addition to the airlock, the next Shuttle mission, STS-104, set for launch Thursday, will carry a crystal growth experiment sponsored by Marshall's Biotechnology Program. It will be making its third trip to the Station. And Atlantis will lift-off with a new, improved Space Shuttle Main Engine, developed under the Marshall Center's direction.

"We're ready to fly," said Todd May, the airlock element manager in Marshall's Flight Projects Directorate. "The Joint Airlock Module will provide a critical capability for the Space Station by allowing space walks in U.S. spacesuits without relying on the Space Shuttle and its airlock."

The U.S. Joint Airlock will make it easier for crews to perform Extravehicular Activities, known as EVAs or space walks, and allow both Russian and American spacesuits to be worn when the Shuttle is not docked with the Space Station. Currently, American suits will not fit through Russian airlocks. The third EVA during STS-104 will be staged out of

the new airlock and will be the first space walk from the Station using a U.S. suit.

*See Space Shuttle on page 4*



Boeing photo

**The new Marshall airlock is designed to accommodate both American- and Russian-made spacesuits.**

## Safety Bowl 2001

**H**ave you joined a team yet? If not, ask your directorate/office representative how you can get involved. Remember to check "Inside Marshall" for more questions.

1. Name the four ways pesticides can enter the body.
2. Mental confusion, delirium and loss of consciousness can all be signs of what heat-induced disorder?
3. Area housekeeping guidelines are defined by:
  - A. Supervisors and managers
  - B. Safety and Mission Assurance Office
  - C. Central Safety, Health, Environment committee
  - D. OSHA
4. What is meant by the "4 to 1" rule as pertaining to the use of a straight ladder?
5. Each employee's what should be clearly defined and is, at least, equal to his or her other job responsibilities?
  - A. Job satisfaction accountability
  - B. Lunch Safety Guidelines
  - C. Home Safety Surveys
  - D. Job safety accountability
6. Acceptance of residual safety hazards and their associated controls are made only by whom?
  - A. Program management
  - B. Operations Controllers sitting console
  - C. Budget consultants
7. What is the Marshall Safety Goal?
8. How long should the eyes be flushed with water following a chemical splatter into the eye(s)?
9. True or False: There are special prescription glasses for working at computer monitors.
10. At Marshall, when is it permissible to leave an unattended vehicle running?

*See Answers on page 7*

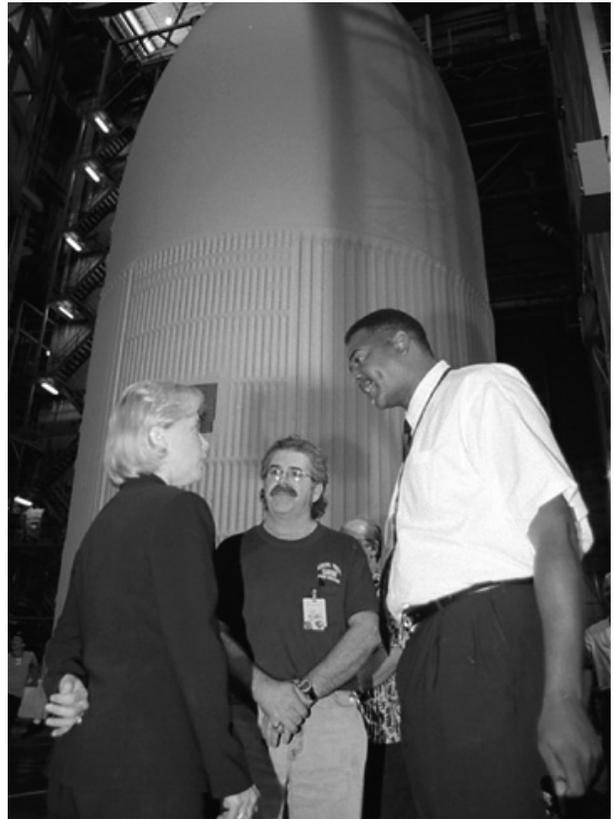


Photo by Kevin Barre, Lockheed Martin/NASA Michoud Assembly Facility

### **Senator sees how External Tank is built**

**Dwarfed by massive Space Shuttle External Tank hardware, U.S. Sen. Mary Landrieu, left, of Louisiana talks with Lockheed Martin employees Jeff Beale, center, and Gordon Meadors during her recent visit to the NASA Michoud Assembly Facility in New Orleans. Landrieu toured the External Tank production line and was briefed on the latest aerospace technologies.**

## ***NASA CONNECT wins third regional Emmy Award***

**T**he NASA CONNECT program, "Mirror, Mirror on the Universe," received an Emmy in the category "Best Children's Programming" in competition sponsored by the Rocky Mountain Southwest Chapter of the National Academy of Television Arts and Sciences.

This is the third Emmy the NASA CONNECT series has received. "Mirror, Mirror on the Universe" focused on the Next Generation Space Telescope, and featured Marshall Center's Space Optics Manufacturing

Technology Center and interviews with Marshall optical physicist, Vince Huegel and Langley Research Center researcher, John Connell.

The 2000-2001 NASA CONNECT series was voted the best K-12 distance learning program in the United States for 2001 by the U.S. Distance Learning Association.

This award recognizes organizations that have designed and delivered an outstanding and comprehensive distance learning program service.

The first place award was based on the

five programs in the 2000-2001 NASA CONNECT series. "Patterns, Functions, and Algebra: Wired for Space," the third program in the winning series was produced by the Marshall Space Flight Center with support provided by the Space Transportation Directorate, Education Programs Department and Marshall TV video services.

About 163,000 educators, representing 8,117,086 students, are registered for NASA CONNECT.

# Integrated Technology Solutions holds safety fair

**L**ockheed Martin Space Operations' Integrated Technology Solutions recently held a safety fair for employees.

Booths on safety issues included health and wellness, DARE, boating safety, Voluntary Protection Program and fire safety. A booth on motorcycle safety featured a motorcycle provided by Ben Curry. The Safe Action For Employees (SAFE) Team held a membership drive, and the Voluntary Protection Program Steering Committee provided general safety information.

Demonstrations were provided by Jeremy Lang on in-line skating and William Ireland — a third degree black belt instructor — on self-defense.

Safety Lotto awards went to Xan Haynes, who won a 13-inch color television; Peter Smith, who won a CD boombox; Harald Belletete, who won a Sony Walkman; and Karin Offik, who won a CD holder.

Several local agencies and businesses contributed to the success of the safety fair: Herb N'Life, Erwin Marine Sales, KC's Power Sports, the Huntsville Fire Department and the Huntsville Police DARE Program.



Courtesy Photo

**Shelly Robinson, left, has a hold on self-defense instructor William Ireland. Looking on are, from left, Pat Donahue, Brenda Griffith, Jimmy Floyd, Larry Kee, Sherry Zoller, Jan Nolan, Daniel Phillips, Joyce Phillips, Mary Jane Brooks, Mark Watts, Renard Bendolph and Michelle Adrian.**

## Dr. Norine Noonan named executive director of National Space Science and Technology Center

*Marshall release*

**N**orine E. Noonan has been named executive director of the National Space Science and Technology Center in Huntsville.

She will begin her duties in August.

Dr. Noonan will be responsible for managing the national science



Noonan

laboratory, according to Dr. Ron Greenwood, director of the Space Science and Technology Alliance (SSTA) and vice president for research at The University of Alabama in Huntsville.

“With Dr. Noonan’s knowledge and experience, the research center will become an exemplary national science and technology environment for the conduct and communication of cutting-edge space

research, development and education in support of NASA’s mission and the nation’s needs,” Greenwood said. “She has a strong background in science and technology and has held key positions in government and academia.”

Noonan said she is excited about her new assignment, and understands the challenges ahead.

“This center brings together outstanding scientists from NASA and academia in an innovative organization that fosters and encourages cutting-edge research,” she said. “It’s already doing great things. I believe it can be a new model for strong and productive research collaboration between government, academia and industry.”

The Marshall Center is providing a core of science and technology expertise to the center, focusing on research space science, Earth sciences, information technology, optics and energy technology, propulsion, biotechnology and materials science.

“We are pleased Dr. Noonan will be leading the National Space Science and Technology Center,” said Marshall Center Director Art Stephenson. “Already, the

NSSTC is making great strides in researching topics ranging from solar storms in space to weather right here on Earth. I’m confident that under her leadership, we will continue to see outstanding results from the scientists and engineers dedicated to this research.”

Noonan received her undergraduate degree from the University of Vermont in Burlington, Vt., and received her master’s and doctorate from Princeton University in Princeton, N.J.

From 1998 to 2001, she served as assistant administrator for Research and Development in the Environmental Protection Agency’s Office of Research and Development. From 1992 to 1998, she was vice president for research and dean of the Graduate School at the Florida Institute of Technology in Melbourne, Fla.

From 1983 to 1992, Noonan was a senior staff member of the Energy and Science Division, Office of Management and Budget, Executive Office of the President, Washington, D.C. where she served as the chief of the Science and Space Programs branch.

# Space Shuttle

*Continued from page 1*

In addition to the Joint Airlock Module, a new high-pressure gas system — also manufactured at the Marshall Center — will be carried into orbit on a double Spacelab Pallet that fits inside the Shuttle's cargo bay.

"It's great to see hardware that did such a good job supporting Spacelab science payloads continue the tradition by carrying major components to our newest space research facility," said Elaine Flowers Duncan, the project manager for the Spacelab Pallet in Marshall's Flight Projects Directorate.

By reusing the Spacelab Logistic Pallet and Marshall's 20 years of successful experience integrating and operating unpressurized carriers, the Flight Projects Directorate is making it less expensive to transport Space Station components. Duncan's team of Marshall and Boeing engineers was instrumental in performing the analytical integration required to carry the Space Station's high-pressure gas system into orbit.

"We performed all the engineering, including design, development, test and evaluation of the flight support equipment and the pallet to carry the equipment safely on the Shuttle to the Space Station," said Duncan.

The Spacelab pallet team will support the mission from the Huntsville Operations Support Center Engineering Support Room at the Marshall Center.

The high-pressure gas system includes two oxygen and two nitrogen tanks to be mounted on the outside of the airlock. The oxygen and nitrogen in the tanks will be used to repressurize the airlock after space walks, replenishing the Station's air when small amounts are lost during EVAs and normal operations and augmenting the Station's current gas resupply system.

Building and testing the new airlock, high-pressure gas tanks and Spacelab pallet was a team effort involving more than 12 contractors from two countries, as well as three NASA centers —



Photo by Doug Stoffer, NASA/Marshall Space Flight Center

## Students prepare biological samples for Space Station.

Marshall, the Johnson Space Center in Houston, Texas, and the Kennedy Space Center in Florida. The Boeing Company, the Space Station prime contractor, built the 6.5-ton (5.8 metric ton) airlock and several other key Space Station components in the same Marshall Center building where the Saturn V rocket that carried people to the Moon was built.

"It's been a tremendous pleasure to watch the NASA and Boeing team transform an empty shell into a flight-worthy component of the Space Station," said May.

The Joint Airlock Module is spindle-shaped, consisting of two cylindrical, pressurized chambers. It is 18 feet (5.49 meters) long and has a diameter of 13 feet (3.96 meters). Inside the large chamber attached directly to the Unity node, astronauts from every participating nation can suit up for space walks to assemble the Station, perform maintenance or install experiments.

In the large chamber, several crew members don suits and perform other activities to prepare for extravehicular activities. Just before the start of a space walk, crew members close a hatch and move to the smaller part of the airlock. Here, pressure is reduced, so the crew can safely go outside and work in the vacuum of space.

Before the airlock was shipped to the Kennedy Center in September 2000, several tests were conducted at the Marshall Center to ensure it would work safely in orbit. A full-suit checkout test in August 1999, and an oxygen systems test in March 2000, were critical to the airlock's performance.

Tests of both Russian and U.S. spacesuits included checking communications between systems in the suits and the airlock, fluid checks of cooling loops and battery checks. The airlock has its own environmental control system, which was evaluated by closing the hatch and measuring temperature and humidity control and carbon dioxide removal capability.

"Communications and acoustics testing, thermal and structural analysis, mechanical evaluation and testing, and safety are just a few of the areas Marshall team members have supported," said May. "Marshall also provided manufacturing facilities and performed program-critical tasks."

During the upcoming Atlantis mission, the Space Station's new robot arm, delivered to the Station in April, will be used to pick up the airlock and attach it to

*See Space Shuttle on page 6*

# Space Station airlock manager set his sights on the stars as a boy in Fairhope, Ala.

by Tracy McMahan

**A**s a boy growing up in Fairhope, Ala., Todd May gazed at the stars and dreamed of space exploration.

Today, he leads the team that built a “doorway to the stars” — a new airlock that will make it easier to exit the International Space Station for Extravehicular Activities, also known as EVAs and space walks.

During Shuttle Mission STS-104, Atlantis will deliver the airlock that May and his team manufactured at the Marshall Center to the Space Station.

“I’ve loved space as long as I can remember,” said May. “When I was just 5, I remember climbing on the roof of my grandfather’s house on Fort Morgan Road

in Gulf Shores to watch a lunar eclipse. From then on, I was hooked.”

Graduating from Auburn University in 1990 with a bachelor’s degree in materials engineering, May started his career at NASA in 1991 as lead engineer at the Marshall Center for the Space Station laboratory in the Materials and Processes Laboratory. Then, he worked at NASA’s Johnson Space Center in Houston, Texas, leading a team that evaluated materials and processes used for the Space Station. Later he became deputy manager of the team working with Russia on the Space Station.

In 1998, May returned to Alabama to lead the team constructing the airlock.

“We’re ready to fly,” said May, airlock element manager in Marshall’s Flight

Project Directorate. “The Joint Airlock Module will provide a critical capability for the Space Station by allowing space walks in U.S. spacesuits without relying on the Space Shuttle and its airlock.”

The U.S. Joint Airlock will make it easier for crews to perform space walks, and allow both Russian and American spacesuits to be worn when the Shuttle is not docked with the Space Station. Currently, American suits will not fit through Russian airlocks. The third EVA during STS-104 will be staged out of the new airlock and will be the first space walk from the Station using a U.S. suit.

To build and test

the airlock, May worked with a team involving more than 12 contractors from two countries, as well as three NASA Centers — Marshall, Johnson, and Kennedy Space Center in Florida. The Boeing Company, the Space Station prime contractor, built the 6.5-ton (5.8 metric ton) airlock and several other key Station components in the same Marshall building where the Saturn V rocket that carried people to the Moon was built.

“It’s been a tremendous pleasure to watch the NASA and Boeing team transform an empty shell into a flight-worthy component of the Space Station,” said May.

The Joint Airlock Module is spindle-shaped, consisting of two cylindrical, pressurized chambers. It is 18 feet (5.49 meters) long and has a diameter of 13 feet (3.96 meters). Inside the large chamber attached directly to the Unity node, astronauts from every participating nation can suit up for space walks to assemble the Station, perform maintenance or install experiments.

The Space Station’s new robot arm, delivered to the Station in April, will be used to pick up the airlock and attach it to Unity, a node or passageway that connects to Destiny, the U.S. laboratory module where Station experiments are conducted. During the next Shuttle mission, STS-104, set for launch Thursday, astronauts will perform three extravehicular activities or space walks to complete airlock installation and activation. If any questions should arise during the mission, May and his team will be on hand to help out from both the Payload Operations Center located at Marshall and from the Mission Control Center at Johnson Space Center.

May his wife Kelly and their three children, Carson, Madison and Harrison, reside in Huntsville.

*The writer, employed by ASRI, supports the Media Relations Department.*



Todd May led the Marshall effort to build the new airlock.

# Safe boating habits = a safe cruise

from Marshall's Safety Office

If you're planning to take to the water on a boat, Jet Ski or other watercraft this summer, practicing safe habits can help you avoid tragic or costly accidents.

People can get caught up in the fun and excitement of water activities and forget to put safety first. Water safety doesn't require a lot of time and effort — just some caution and common sense.

The safety office offers the following safety tips for enjoying water activities:

- Don't operate a boat or other

watercraft if you have been drinking alcohol or using drugs — they impair reaction, timing and judgment.

- Be aware of your surroundings and watch for people in the water, other boaters and personal watercraft.
- To avoid injuries, turn off the engine when near individuals in the water. All individuals on the vessel must have approved life vests that fit.
- Don't stand in or on a vessel while it is in motion.
- Try to minimize distractions while driving. If you're the driver, watch the

horizon and let one of your passengers observe the skier and assist in watching out for other boaters.

- Don't overload your vessel. Not only is it unsafe, but you could be cited by the Coast Guard or local authorities.
- Always secure loose items in the boat.
- For boats, be sure to turn on the blower after fueling and prior to starting the engine.
- Watch the oil, temperature and other gauges for signs of problems. Ignoring warning signs can result in costly repairs.

## Space Shuttle

Continued from page 4

Unity. Unity also was built and tested at the Marshall Center — a primary NASA center for Space Station construction.

The arm will be used to grab each of the four gas tanks from the Spacelab pallet and place them near the airlock. Astronauts performing an extravehicular activity using the Shuttle airlock will attach the four tanks to the outside of the large part of the airlock using mechanisms tested by Marshall engineers. During the STS-104 mission, astronauts will conduct three extravehicular activities to complete airlock activation operations.

On their way to the Station, the Space Shuttle crew can expect an even safer ride into orbit, thanks to completion of a new Space Shuttle Main Engine. This is the first flight of the engine — called the Block II configuration — developed under Marshall Center direction. The engine has a new high-pressure fuel turbopump and other features that enhance its reliability. The main engines operate for about eight-and-one-half minutes during liftoff and ascent, and shut down just before the Shuttle reaches low-Earth orbit — the address of the International Space Station.

While the Shuttle is docked with the Station, the crew will transfer a biotechnology experiment from the Shuttle middeck to the orbiting laboratory. Students and teachers from elementary, middle and high schools throughout Alabama, California and Tennessee helped prepare biological solutions inside the experiment container.

During a one-month stay in space, the solutions will form crystals that help scientists and the students learn how biological substances carry out important functions in humans, animals and plants. This hands-on education and science experiment will join seven other experiments, already on the Station, sponsored by the Microgravity Research Program at Marshall — NASA's lead center for flying experiments that take advantage of low gravity inside the Space Station.

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## Workshop

Continued from page 1

national standards and state framework into their instruction, the needs of their students and the development of a post-workshop action plan.

A panel of educational experts from across the country evaluated and scored the applications. The top 250 educators were selected to participate in the program. Each finalist was assigned to one of 10 NASA field centers.

Participants selected to attend the teacher workshop come from 50 states, the District of Columbia, Department of State Overseas Schools and U.S. Territories. NASA Educational Workshops are sponsored and implemented by NASA.

The National Science Teachers Association serves as an educational partner to the program and provides administrative support. The International Technology Educational Association, the National Council of Teachers of Mathematics and the National Council for Geographic Education are collaborators with NASA and National Science Teachers Association for this program.

## Job Opportunities

**CPP-01-045-EB, AST, Data Systems, GS-854-14**, Engineering Directorate, Avionics Department, Flight Software Group. Closes July 16.

**CPP-01-032-JB, Supv., AST, Aerospace Vehicle Propulsion Systems, GS-861-15**, Space Transportation Directorate, Vehicle and Systems Dev. Dept., Systems Analysis Group. Closes July 19.

**CPP-01-055-DS, Human Resources Specialist, GS-201-07**, Customer and Employee Relations Directorate, Human Resources Department. Closes July 20.

**CPP-01-059-DS, Protocol Assistant, GS-303-07**, Customer and Employee Relations Directorate, Protocol Office. Closes July 20.

**CPP-01-056-CP, Operations Support Specialist, GS-301-12**, Office of Chief Financial Officer. Closes July 20.

**CPP-01-051-DS, AST, Data Analysis, GS-1520-07**, Center Operations Directorate, Information Services Department, Operations Group. Closes July 23.

## Center Announcements



### Marshall picnic

The Marshall Center's annual picnic — Family Fun Day — will be held from 10 a.m.-3 p.m. Aug. 25 at the Marshall picnic area.

### Upcoming Classes

#### Contracting Officer Technical Representative (COTR)

The final offering of Contracting Officer Technical Representative training for 2001 will be taught from 8 a.m.-noon daily, July 16-20, by Phil Taylor and John Cather in Bld. 4200, room G-13C. Anyone needing COTR training should sign up as soon as possible. Registration is via AdminSTAR.

#### Cost Management

Activity Based Cost Management will be taught from 8:30 a.m.-4:30 p.m. July 16-18 in Bldg. 4200, room G-13-D. This is the last finance course being taught by Management Concepts this fiscal year. Please register as soon as possible via AdminSTAR.

### Clubs and Meetings

#### Marshall Association meets

The Marshall Association will meet at 11:30 a.m. July 25 in the Bldg. 4203 cafeteria. Jan Wells, mayor of Madison, will speak. Call Efreem Hanson at 544-6340 by July 23 to make reservations. Cost of the meal will be collected at the door.

#### NARFE meets

The National Association of Retired Federal Employees (NARFE) will meet at 9:30 a.m. Saturday at the Senior Center on Drake Avenue. State Rep. Jim Haney, House District 10, will speak on recent legislative actions, his defeated traffic-light camera bill, as well as his views on rewriting the State Constitution. For more information, call 881-4944 or 881-3168.

#### Shuttle Buddies meet

The Shuttle Buddies will meet for breakfast at 9 a.m. July 23 at Mullins Restaurant on Andrew Jackson Way. For more information, call Deemer Self at 881-7757 or Gail Wynn at 852-8189.

#### Lunch-time prayer

Join the lunch-time prayer and fellowship from noon-12:30 p.m. every Tuesday and Thursday in Bldg. 4200, room 432, or send prayer requests. For more information, call Johnnie Wilson at 544-1007 or send an e-mail to: johnnie.Wilson@msfc.nasa.gov

#### Blacks in Government

The Huntsville-Madison County Chapter of Blacks in Government will host its Professional Development Training Seminar Dec. 6 in the Tom Bevell Center. Cost is \$125. For more information, call (256) 551-7230 and leave a message.

### Sports

#### Tennis tournament

The MARS Tennis Club will hold an Open Mixed Doubles Tournament July 14. Warm up begins at 8 a.m. and play begins at 8:30. Guest fee is \$5 for this tournament, and at least one member of the team must be a member of the Mars Tennis Club. To participate, contact Ronda Moyers at 544-6809 or ronda.moyers@msfc.nasa.gov

### Miscellaneous

#### Schmidt space talk

There will be a space-related talk from 7-8:30 p.m. July 18 at the Huntsville-Madison County Public Library auditorium at 915 Monroe St. in Huntsville. "Researching a SAFE Nuclear Rocket Engine: The NASA Safe Affordable Fission Engine (SAFE) Program," will be presented by Dr. George Schmidt, deputy manager of Marshall's Propulsion Research Center. For more information, call Ronnie Lajoie at 461-5934 or 721-1083.

### Answers

*Continued from page 2*

1. Through the skin, mouth, nose and eyes
2. Heat stroke
3. A. Supervisors and managers
4. For every 4 feet of ladder height (up to the support point), the ladder base should be 1 foot away from the wall.
5. D. Job safety accountability.
6. A. Program management.
7. Establish Marshall as No. one in safety within NASA
8. As a guideline, minimum of 15 minutes (Refer to MSDS; some may require longer)
9. True. Special Monofocal glasses with a focal length of about 20 inches may be prescribed for VDT work, particularly for people who have presbyopia (the inability to focus up close).
10. Never

## Employee Ads

## Miscellaneous

- ★ Taylor Made Burner Bubble, 5-wood, \$40; Taylor Made Burner Bubble-2, 7-wood, \$50. 350-6477
- ★ Vermont Castings fireplace insert, mfg. 1983, built-in blowers, adapter/flue, \$450 obo. 536-5567
- ★ Conn Alto Saxophone w/hard case, no flaking of finish, used 3 yrs., \$450 obo. 653-3625
- ★ Two twin beds, mattresses, bed covers, matching cushions and table, \$250. 533-4824
- ★ Hotpoint washer and dryer, \$160. 533-5942
- ★ Floating swimwear; boys x-small (22-35 lbs.), girls small (33-65 lbs.), girls medium (55-75 lbs.). 971-2773
- ★ Antique Dining Room Suite, solid oak table w/six chairs and buffet, \$1000. 881-3797
- ★ Medela pump-in style breast pump; baby bathtub. 721-2239
- ★ Garmin GPS Emap w/8mb memory, \$190; Snapper riding mower, 8HP, \$450. 461-6337
- ★ Utility trailer w/tilt bed, 5'x8', trailer lights, and sides, \$350. 351-7804
- ★ German Shepherd mix, 7-month old female, 40 lbs., friendly, needs large fenced yard, will spay. 971-2773
- ★ Protecta truck bedliner, fits 89-98 Chev./GMC regular bed, \$75; motorcycle full-face helmet, never worn, red design, \$70 obo. 864-0465
- ★ 1998 GT LTS-2000, full-suspension mountain bike, 16" frame, Marzocchi Z1 fork, 9-speed cassette, \$950. 864-0020
- ★ Pocketknife collection; Specialty collector's knives included, 16 knives total. 776-0112
- ★ Cultured marble vanity w/double basin, gray, 7' long, \$35. 895-2959
- ★ Bunn coffeemaker, \$75. 837-6776
- ★ Sewing machine, new in box, \$225; above ground pool ladder, new, \$125. 337-5939
- ★ Olympus Sys. 230 portable optical drive, PC & Mac, SCSI & Parallel, 4G storage disks, software, \$100 obo. 828-6213
- ★ Proform treadmill 625PT, Yr. 2000 Model, powered incline, programmed exercise and other options, \$450. 837-3844
- ★ Compound bow, PSE BabyG, 70# draw weight, 75 etOff and overdraw, \$150 obo. 837-1551
- ★ Rifle, New England Arms, single shot, 45-70, w/ Simmons 3x9x40mm scope, extras, \$215. 379-3606
- ★ Chromecraft dinette w/leaf and six chairs, \$95. 881-9421
- ★ Pool filter, 1 yr. old, \$300; Starburst Mosaic pool liner, new, 18x36, \$900. 350-6667 after 5 p.m. or leave message
- ★ Snapper riding lawn mower w/bagger and utility trailer, 9HP, 28" HI/VAC, mulching blade, 2 yrs. old, \$900. 353-0370 after 5 p.m.
- ★ Gibson Epiphone guitar w/case, mint condition, great tone, \$325. 534-3809/leave message
- ★ Solid maple bed, dresser w/mirror, chest of drawers, and desk w/chair, \$300. 881-3811
- ★ Brunswick pool table, Paragon oak w/cherry finish, navy blue, 1" slate, drop leather pockets, all accessories, \$2,000 obo. 509-3392
- ★ Callaway X-12 irons, RCH 99 (F), 3-SW, original grips, \$400. 880-7305
- ★ Lowery M150 Pageant "Magic Genie" organ, includes home organ course and bench, \$500. 883-9753 after 5 p.m.
- ★ 1997 Sea-Doo GTI, 3-seater, new in '98, garage kept, canvas cover, \$4,400. 256-586-7797
- ★ Pickup truck bedliner for full size truck, \$75. 256-582-3422
- ★ Weider 8530 workout stationary unit, eight workout stations, 210 lb. Capacity w/bench press, \$200. 773-1211
- ★ King-size waveless waterbed, light-colored oak w/headboard and two lamps, \$250. 772-2061
- ★ Scanner, Visioneer 7700, 600x1200 dpi, 42-bit, USB, built-in Smart Media & Compact Flash memory card readers, PaperPort 7.0 software, \$125. 837-0625
- ★ Camper, ALJO, approx. 8'x14', 4 sleep areas, gas & electric, pull behind, \$1,000. 533-7630

## Vehicles

- ★ 1998 Jeep Wrangler, 13K miles, rag-top, Alpine CD, sound bar, new off-road tires, \$14,800. 534-3252
- ★ RV Class C, 50K miles, \$2,500. 837-6776
- ★ 1993 Toyota Camry LE, V-6, 85K miles, CD, new tires, garaged, \$7,500. 772-3981
- ★ 1997 Chevrolet Cheyenne c1500, 6-cyl., auto, short-bed, am/fm/cassette, factory chrome wheels, \$7,650 firm. 753-2278
- ★ 1995 Chevy Astro van, 8-passenger, 113K miles, \$6,300. 721-2239
- ★ 1991 Chevrolet Lumina, Michelin tires, 157K miles, \$2,950. 256-420-4355
- ★ 1994 Chevy Tahoe, 6 cyl., 4x4, white w/gray cloth upholstery, ps/pb/pl, ac, am-fm stereo cassette/radio, 110K miles. 256-881-7967
- ★ 1995 Ford Taurus GL, 4-door, auto, air, am/fm/cass., 93K miles, \$4,995. 256-586-2852

- ★ 1990 Bronco II XLT, 4x4, power locks/windows/steering, blue & white, 152K miles. 721-9831
- ★ 2000 Ranger XLT, SuperCab, V-6, auto, bedliner, am/fm w/CD, towing pkg., receiver & hitch, toolbox, 12K miles, \$15,600. 256-538-8525
- ★ 1986 Ford F150 extended cab pickup, beige, 6-cyl., manual w/overdrive, a/c, ps/pb, alloy wheels, new tires, \$1,900. 778-9149
- ★ 1999 Honda Accord LX coupe, V-6, 39K miles, \$17,500 obo. 536-3390
- ★ 1994 Mercury Villager LS, green, am/fm/cassette/CD, dual air, dual captain seats, 105K miles, \$6,000 obo. 859-8432
- ★ 1991 Mercury Capri convertible, silver, 5-speed, 53K miles, new soft top, hardtop & tonneau cover, \$5,450. 881-1005
- ★ 1991 Nissan Maxima, PS/PW/PDL, security, maroon, new tires, 4-dr., automatic, Bose audio, 125K miles, \$5,250. 881-4148
- ★ 1999 GMC Safari extended van, custom luxury package, leather, TV, CD, in warranty, white w/taupe trim, \$27,000. 533-0257
- ★ 1999 Chevrolet 1500, white, 2WD, auto, air, 38K miles, warranty, \$15,500. 256-423-4877/256-527-9771
- ★ 1992 Dodge Caravan, 97.3K miles, cold air, \$3,800 obo. 461-8182
- ★ 1998 Mercury Grand Marquis LS, red w/white leather, V-8, ultimate package. 536-8244
- ★ 1927 Phaeton touring car, reupholstered seats, new primary wiring harness, many new parts, driven weekly. 764-2492 after 5 p.m.

## Free

- ★ Kitten, 12-weeks old, white with silver highlights, free to good home. 233-8498
- ★ Gray tabby kitten, female, free to good home. 971-1414
- ★ Sears 21' fridge, needs compressor, almond, icemaker; two old computers; Epson MX100 printer. 837-6776
- ★ Full size, approx. 3'x5', mechanical drafting table, you haul. 461-9735
- ★ Small metal swing set, w/two swings, two gliders and slide. 774-3080

## Wanted

- ★ Stereo amplifier with jacks to accept input from CD player. 971-1462

## Lost

- ★ LYNX golf umbrella, Bldg. 4201. 883-1195

## MARSHALL STAR

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